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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SEAN WHITE and LANCE WILLIAMS

Appeal 2016-003156
Application 13/117,402[1]
Technology Center 2600

Before CARL W. WHITEHEAD JR., ADAM J. PYONIN, and SHARON FENICK, *Administrative Patent Judges*.

FENICK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–6 and 8–12. Claims 7 and 13–31 are cancelled. (Appeal Br. 18–19.) We have jurisdiction under 35 U.S.C. § 6(b)(1).

We affirm.

Invention

Appellants' invention relates to facilitation of interactions with augmented reality devices, including visual recording of a view from an imaging device and display of the visual recording of the view on a display

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[1] Appellants identify Nokia Technologies Oy as the real party in interest. (Appeal Br. 2.)

device. Upon receipt of an indication of a touch input to the display device, an icon representative of the touch input is displayed to the imaging device. (Spec. Abstract.) This displayed icon may remain at the same position relative to a scene in the view as the field of view changes with the motion of a user. (*Id.*¶¶ 45–46.)

Exemplary Claims

Claims 1 and 5, reproduced below, are exemplary:

1. A method comprising:

receiving an image of a view captured by an augmented reality device;

causing the image to be displayed on a remote user interface, wherein the remote user interface is remote from the augmented reality device;

updating the received image based on a movement of a user with the augmented reality device;

receiving an indication of an input provided to the remote user interface, the input comprising a movement across a display of the remote user interface such that the input is in a same location relative to the captured view; and

causing a cursor displayed by an augmented reality device display to remain stationary relative to the captured view while the captured view changes perspective based on the movement of the user with the augmented reality device, and while the cursor moves on the augmented reality device display, wherein the cursor is displayed based on the input provided to the remote user interface.

5. The apparatus of Claim 4, wherein the at least one processor and at least one memory storing computer program code are configured, with the at least one processor, to cause the apparatus to receive the input to identify a respective feature within the image and continue to identify the respective feature as the image changes.

Rejections

The Examiner rejects claims 1–5 and 8–11 under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Beller et al. (US 6,046,712; iss. Apr. 4, 2000)("Beller"), Zhou et al. (US 2007/0248261 Al; pub. Oct. 25, 2007)("Zhou"), and Buhrke et al. (US 2007/0162863 Al; pub. July 12, 2007)("Buhrke"). (Final Action 5–18).

The Examiner rejects claims 6 and 12 under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Beller, Zhou, Buhrke, and Mann (US 6,614,408 Bl; iss. Sept. 2, 2003). (Final Action 18–19).

Issues

I. Did the Examiner err in finding the cited references teach or suggest "causing a cursor displayed by an augmented reality device display to remain stationary relative to the captured view while the captured view changes perspective based on the movement of the user with the augmented reality device," as recited in claim 1?

II. Did the Examiner err in combining Beller and Buhrke, in combination with Zhou, in the rejection of claim 1?

III. Did the Examiner err in finding the cited references teach or suggest "receive the input to identify a respective feature within the image and continue to identify the respective feature as the image changes," as recited in claim 5?

IV. Did the Examiner err in rejecting claims 6 and 12?

ANALYSIS

Preliminarily, with respect to Appellants' argument that the office action appealed from was improperly designated as final (Appeal Br. 8), we note that any request to seek review of the Examiner's failure to designate a

rejection as a new ground must be made by petition to the Technology Center Director overseeing the Examiner's Art Unit. 37 C.F.R. § 41.40(a).

(I) Obviousness Rejection – Claim 1
causing a cursor displayed by an augmented reality device display to remain stationary relative to the captured view while the captured view changes perspective based on the movement of the user with the augmented reality device

Claim 1 recites, *inter alia*, the display of an image of a view captured by an augmented reality device, the updating of the received image based on the movement of a user with the augmented reality device, and, for a cursor displayed based on input provided to a remote user interface, "causing a cursor displayed by an augmented reality device display to remain stationary relative to the captured view *while* the captured view changes perspective based on the movement of the user with the augmented reality device, and *while* the cursor moves on the augmented reality device display." (emphasis added.) Regarding the last limitation ("the cursor display limitation"), Appellants argue that, because of the words "*while*" in the cursor display limitation, the limitation "include[s] temporal limitations which impose a continuous association of the cursor to some reference point in the view as the view changes perspective based on movement of the user with the device." (Appeal Br. 12.) Appellants contend that neither Beller nor Buhrke teach this, nor can they be combined in a way which suggests the feature. (*Id.* at 12–13.)

We note, first, that in the cursor display limitation, "the movement of the user with the augmented reality device" has antecedent basis in the claim limitation of "updating the received image based on a movement of a user with the augmented reality device." The Examiner finds the user movement

and updated image to be taught or suggested by both Beller (Final Action 6) and Zhou (*id.* at 8). The Examiner finds Beller teaches "the operator of the remote system can see the changing view of the user of the head mounted system in real time." (*Id.* at 6, quoting Beller 2:16–19.) The Examiner also finds various teachings from Beller, Zhou, and Buhrke to be pertinent to the cursor display limitation (*id.* at 7, 9–11.)

Appellants argue that Buhrke only teaches or suggests multiple views of a three-dimensional environment, each provided to one of Buhrke's "collaborators." Appellants contend:

> Although a view may "change" perspective to the perspective of a different collaborator . . . there is no suggestion that the two views of Figures 6 and 8 would be incorporated into an animation such that the pointer remains stationary relative to a view while the view changes perspective based on movement.

(Appeal Br. 12.) Appellants argue that there would never be a transition between the two perspectives provided in Buhrke because each is the view of a separate user/collaborator, and, thus, while in Appellants' interpretation of claim 1 "a display is continuously maintained" during user movement and corresponding updating of the image, Buhrke does not contemplate such a continuously maintained display. (*Id.* at 12–13.)

However, we agree with the Examiner that the combination of the teachings of Beller (in which views are updated based on the movement of a user – a continuously maintained display during movement) and those of Buhrke (teaching two perspectives of a scene in which a cursor appears in the same relative position in the view) would teach or suggest the cursor display limitation. (Final Action 2–12, Answer 3–4.) Appellants focus on the individual teachings of the prior art and the purported deficiency in each, and do not address what the combination would have suggested to one of

ordinary skill in the art. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Merck & Co., Inc.,* 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)). Accordingly, we agree with the Examiner that the combination of cited references teaches or suggests the cursor display limitation, including the "while" recitations therein. *See* Answer 3–6.

Thus we are not persuaded, by this argument, of error in the Examiner's rejection of claim 1.

(II) Obviousness Rejection – Claim 1
Combination of Beller and Buhrke

Appellants additionally argue, with respect to the combination of Beller and Buhrke, that the combination is improper because providing views from different user perspectives to a remote user, and suddenly switching between these views, would be disorienting. (Appeal Br. 13–14.) However, as the Examiner finds, the combination of Beller's teaching of a gradually changing viewpoint is combined with Buhrke's teaching that a cursor would remain at the same relative position in the view from the gradually changed viewpoint. (Final Action 11; Answer 6.) No combination which would switch user perspectives suddenly has been contemplated by the Examiner and therefore we are not persuaded by Appellants' arguments that the Examiner's combination of Beller, Buhrke, and Zhou would be disorienting. While Appellants further argue that "there is simply no motivation" for the combination of references (Appeal Br. 14), we note that the Examiner has explicitly provided a motivation for the combination (Final Action 10–11).

In view of our findings and conclusions with respect to the arguments presented by Appellants with respect to claim 1, we are not persuaded by such arguments of error in the Examiner's rejection of claim 1. We sustain the obviousness rejection of claim 1 and of claims 2–4 and 8–10, not argued separately.

(III) Obviousness Rejection – Claim 5
to cause the apparatus to receive the input to identify a respective feature within the image and continue to identify the respective feature as the image changes

Appellants argue with respect to the rejection of claim 5, the cited portion of Beller specifically requires the user to maintain one position during receipt of the input, and this teaching therefore "clearly contradicts the independent claims which require movement of the user with the augmented reality device." (Appeal Br. 14–15.) Thus, Appellants argue the combination of the prior art teaches away from the features of the independent claims.

However, we note that although Beller teaches that the user may be stationary while an "assistant can add marks, icons, text or graphics to the picked up image . . . so as to identify, for example, a particular object within the picked up image" (Beller 8:38–67), this does not require the user in Beller to remain stationary at other times. In fact, the rejection combines this teaching in Beller of identification input with other teachings, including those in Beller itself, which relate to continued remote user movement and image change based on such movement. (Final Action 5–7, 14–15.) It is clear that Beller teaches both that "the operator of the remote system can see the changing view of the user of the head mounted system in real time" (Beller 2:16–19) and that the identification process may require a user to

remain stationary or realign head position. We see no contradiction within Beller, nor in the use of Beller's teachings regarding user movement in general on one hand, and a user remaining stationary for identification, on the other.

Thus, we are not persuaded by Appellants' arguments of error in the Examiner's rejection of claim 5, or of claim 11, argued on the same basis. (Appeal Br. 15.)

(VI) Obviousness Rejections – Claims 6 and 12

Appellants argue the rejection of claims 6 and 12 based on the alleged issues with the rejection of claim 1, arguing further that the additional reference does not cure the argued deficiencies. Accordingly, we are unpersuaded of error in the rejections of claims 6 and 12 for reasons discussed above.

DECISION

The Examiner's 35 U.S.C. § 103(a) rejections of claims 1–6 and 8–12 are affirmed.

Pursuant to 37 C.F.R. § 1.136(a)(1)(iv), no time period for taking any subsequent action in connection with this appeal may be extended.

AFFIRMED